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## *Gain Standard Deviation*

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The Gain Standard Deviation is a measure of risk that is basically similar to the standard deviation, except that this is a statistic, which considers the variability of the positive returns around their mean only (Lhabitant, 2006). For example, when determining this measure all periods/observations with negative outcomes are neglected and, thus, volatility is calculated solely on the basis of the gain periods. Correspondingly, when calculating the opposite volatility measure—the loss standard deviation, in an analogous way—only the loss outcomes are considered. The gain standard deviation, in essence, is a measure of the upside (ex-post or ex-ante) risk. The higher the gain standard deviation, the higher the variability of the (possible or observed) positive outcomes. Lower values can be interpreted as a rather uniform distribution of the positive outcomes.

### REFERENCE

Lhabitant, F. S. (2006) *Handbook of Hedge Funds*. Wiley, Hoboken, NJ.

## *Gain-to-Loss Ratio*

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The gain-to-loss ratio is the ratio of the expected gain divided by the expected loss in a certain measurement period. The term “gain” refers to the expected excess returns that are above the risk-free rate and the term “loss” is the negative of expected excess returns that are below the risk-free rate. The approach is intuitively appealing, inasmuch as gain conceptualizes a profit and a loss as its antonym. A gain-to-loss ratio greater than one means

the expected gain exceeds the expected loss. In this concept, expected gain and expected loss serve as an alternative to mean and variance, which are more commonly used in finance. In terms of a gain-to-loss ratio, this appears to be especially valuable when return distributions are not normally distributed. This is particularly the case in options markets, bond markets, insurance markets, and equity markets. For example, suppose an asset is selling for \$100 and an investor assumes a 0.60 chance that the asset could appreciate to \$140 within 1 year and a 0.40 chance that it could decline to \$90. Given a risk-free rate of 5%, the expected gain is  $0.60[(140/100) - 1.05] = 0.21$ . The expected loss is  $0.40[1.05 - (90/100)] = 0.06$ . The gain-to-loss ratio is  $0.21/0.06 = 3.50$ . This compares favorably with the average S&P 500 long-term ratio which O'Connor and Rozeff (2002) estimate to be 3.0 for the period 1926–1997.

## REFERENCE

- O'Connor, P. and Rozeff, M. S. (2002) Are gain and loss respectable? *The Journal of Portfolio Management*, 28, 61–69.

## Gate

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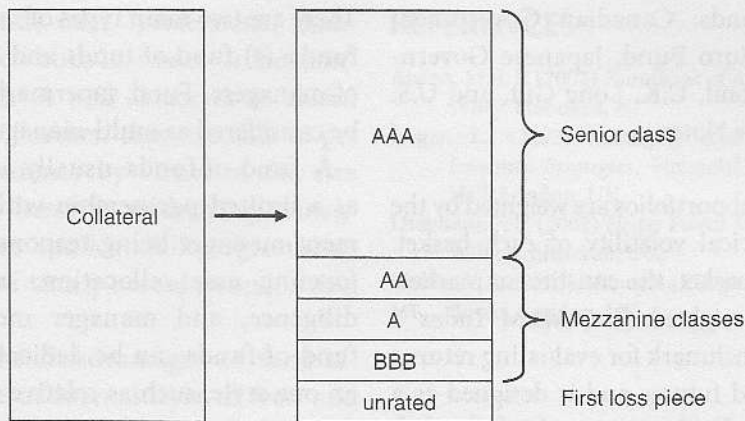
“Gate” is a term that refers to an investor’s right to redeem shares from a Fund. A gate limits the amount of outstanding shares of a fund that can be redeemed at a given redemption date. In a circumstance where

redemption request exceeds the given limit, redemptions are usually granted on a first-come, first-serve basis, where the remainder is pro rata distributed on the next given period. The gate will be stated in each fund’s offering documents and varies from fund to fund. Typical gates range in the area of 15–25% of the fund’s assets. Gates can be on a share class, feeder fund, or master fund level. The following is an example fund that has a 25% gate with the next available redemption date of 31st March. The fund receives redemption requests of 32% of the outstanding shares of the fund. The first 25% of investor’s capital that was received to be redeemed will be payable according to the fund’s redemption schedule. The remaining 7% will be held over until the next redemption date.

The purpose of a gate is to protect the remaining shareholders of the fund. The gate is usually set with accordance of a limit where the fund manager believes that redemptions past the limit will have adverse effects on the fund. As Anson (2006) notes, if the fund is fully invested at the time of redemption, the additional transaction costs that otherwise would not be incurred will be borne by all investors. Additionally, the less liquid assets the manager holds, the greater the costs associated with withdrawal. If a large redemption forced the fund to raise funds to meet the redemption, a fire sale might occur, where all the selling would drive down the price of the assets the fund holds and set off a material decline in the fund’s net asset value.

## REFERENCE

- Anson, M. (2006) *Handbook of Alternative Assets*. Wiley, Hoboken, NJ.



**FIGURE 2**  
Typical subordinated structure for a nonagency CMO.

External credit enhancements are normally third-party guarantees such as a corporate guarantee, a letter of credit, pool or bond insurance, and offset losses up to a specified level. In contrast to this, internal credit enhancements come in more complicated forms and may alter the cash flows even in the absence of default. The various forms are subordination, reserve funds, excess spreads, and overcollateralization. Figure 2 displays a nonagency-subordinated structure, which is the most widely used internal credit enhancement. The subordinated tranche is the first loss piece absorbing all losses on the underlying collateral, thus protecting the senior tranches. Fabozzi (2005) provides an detailed overview of different form of MBS.

Stone, C. A. and Zissu, A. (2005) *The Securitization Markets Handbook*. Bloomberg Press, Princeton, NJ.

## Mount Lucas Management Index

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The Mount Lucas Management Index (MLM Index™) was created in 1988 by Mount Lucas Management Corp., headquartered in Princeton, New Jersey. The MLM Index™ comprises three liquid futures contracts baskets (commodities, currencies, and global bonds) consisting of 22 futures contracts:

Commodities: copper, corn, crude oil, gold, heating oil, live cattle, natural gas, soybeans, sugar, unleaded gas, and wheat

Currencies: Australian Dollar, British Pound, Canadian Dollar, Euro, Swiss Franc, and Japanese Yen

### REFERENCES

- Fabozzi, F. J. (2005) *The Handbook of Fixed Income Securities*. McGraw-Hill, New York, NY.
- Fabozzi, F. J. (2005) *The Handbook of Mortgage-Backed Securities*. McGraw-Hill, New York, NY.
- Hayre, L. (2001) *Salomon Smith Barney Guide to Mortgage-Backed and Asset Backed Securities*. Wiley, Hoboken, NJ.



Global Bonds: Canadian Government Bond, Euro Bund, Japanese Government Bond, U.K. Long Gilt, and U.S. Ten Year Notes

The three subportfolios are weighted by the relative historical volatility of each basket. Within each basket, the constituent markets are equally weighted. The MLM Index™ serves as a benchmark for evaluating returns from managed futures and is designed as a trend-following index. It compares the price of a future versus its 12-month moving average. If the current price is above (below) its 12-month moving average, the index buys (sells) the futures contract. The index composition is rebalanced monthly and no leverage is employed. Mount Lucas Management Corp. replicates this index for a wide variety of investors via funds and separate accounts.

## REFERENCES

- Anson, M. J. P. (2002) *Handbook of Alternative Assets*. Wiley, New York, NY.
- Mount Lucas Management (2007) Presentation "Mount Lucas Management and the MLM Index.™", Princeton, NJ.

## *Multi-Manager Hedge Fund*

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A multi-manager hedge fund is an offering consisting of multiple fund managers. The offering may comprise managers within the same asset class or managers specializing in different markets and instruments.

There are two main types of multi-manager funds: (1) fund-of-funds and (2) manager-of-managers. Fund supermarkets can also be considered as multi-manager products.

A fund-of-funds usually is structured as a limited partnership with the investment manager being responsible for performing asset allocation, manager due diligence, and manager monitoring. A fund-of-funds can be dedicated—focused on one style, such as relative value, event-driven, or even multi-strategy that focuses on a diversified exposure to several hedge fund categories. Hedge Fund Research (HFR), a Chicago-based index provider, has recently created a new database that groups fund-of-hedge funds by risk profile: conservative, diversified, market-defensive, and strategic.

Investing in a fund-of-funds provide several benefits. They offer instant diversification by investing in a number of funds and reducing idiosyncratic risk contributed by the individual funds. Studies of fund-of-funds demonstrate that a portfolio of five hedge funds can eliminate approximately 80% of the idiosyncratic risk of individual hedge fund managers.

Fund-of-funds facilitate access to hedge funds and for minimum investment of \$1 million, investors can get access to a diversified portfolio of hedge funds that themselves usually have a \$1 million investment minimum. Several fund-of-funds are listed on an exchange (e.g., Dublin, Frankfurt, London, and Zurich) and are members of clearing systems (e.g., Euroclear and Cedel; see Reynolds, 2005). The familiar trading and settlement processes through an exchange, as well as the greater perceived oversight and transparency, offer some investors increased comfort with this type of product.